

## Claims

- [c1] 1.A method of forming a printed circuit board, the method comprising the steps of:
  - providing a substrate comprising a seed layer formed by electroless plating;
  - forming a masking layer on said seed layer to provide first regions of exposed seed layer;
  - forming a circuit pattern on said first regions of exposed seed layer by electrolytic plating;
  - removing said masking layer to expose second regions of said seed layer; and
  - etching said exposed second regions of said seed layer with an etching liquid, said etching liquid at a temperature less than about 15 degrees Celcius.
- [c2] 2.The method of claim 1, wherein the temperature of said etching liquid is about 5<sup>o</sup>C to about 10<sup>o</sup>C.
- [c3] 3.The method of claim 1, wherein said masking layer comprises photoresist.
- [c4] The method of claim 1, wherein said seed layer and said circuit pattern comprise copper.

- [c5] The method of claim 1, wherein a distance between confronting portions of said circuit pattern is about 150 $\mu$ m or less.
- [c6] The method of claim 1, wherein said seed layer and said circuit pattern are formed by copper plating.
- [c7] The method of claim 1, wherein said etching liquid comprises an acid.
- [c8] The method of claim 7, wherein said acid comprises an H<sub>2</sub>O<sub>2</sub>-H<sub>2</sub>SO<sub>4</sub> aqueous solution.
- [c9] The method of claim 1, wherein said substrate is dipped in said etching liquid within a dip bath.